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ning of each regular issue of the PCT Gazette.

(54) Title: **DIAGNOSTIC AND THERAPEUTIC TREATMENTS RELATED TO MITOCHONDRIAL DISORDERS**

(57) Abstract: The invention is based in part on the discovery that chromosomal disorders such as Down Syndrome can be diagnosed by assessing maternal mitochondrial status. Thus the invention relates to diagnostic and therapeutic methods and related products for chromosomal disorders such as Down Syndrome, for example, for identifying a risk of fetal Down syndrome and methods of mitigating that risk. The methods also re useful for other therapies where it is desirable to manipulate mitochondria such as tissue generation.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C07H 21/02, 21/04; A01N 63/00, 65/00; C12N 5/00, 5/02; A01K 67/00, 67/033
US CL : 536/23.1; 424/93.1; 435/325; 800/8

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	(ANONYMOUS) "MitoTracker and MitoFluor Mitochondrion-Selective Probes". In: Molecular Probes Product Information. December 2002, page 1, column 1, lines 9-11.	9, 30
A	BUSCIGLIO, J et al. Altered Metabolism of the Amyloid β -Precursor Protein Is Associated with Mitochondrial Dysfunction in Down's Syndrome. Neuron. 28 February 2002, Vol. 33, pages 677-688, especially page 677.	12
A	JEZEK, P. Possible physiological roles of mitochondrial uncoupling proteins—UCPn. International Journal of Biochemistry & Cell Biology. 2002, Vol. 34, pages 1190-1206.	11, 31-36
X	ARBUZOVA et al. Mitochondrial dysfunction and Down's syndrome. Bioessays. 2002, Vol. 24, pages 681-684.	1-12, 22-30

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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